

Review of the Working Group on Precession and the Ecliptic

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Abstract

The IAU Working Group on Precession and the Ecliptic was charged with providing a precession model that was both dynamically consistent and compatible with the IAU 2000A nutation model, along with an updated definition and model for the ecliptic. The report of the working group has been accepted for publication in *Celestial Mechanics* (Hilton *et al.* 2006, in press) and has resulted in a recommendation to be considered at this General Assembly of the IAU. Specifically, the working group recommends,

1. that the terms *lunisolar precession* and *planetary precession* be replaced by *precession of the equator* and *precession of the ecliptic*, respectively,
2. that, beginning on 1 January 2009, the precession component of the IAU 2000A precession-nutation model be replaced by the P03 precession theory, of Capitaine *et al.* (2003, *A&A*, **412**, 567-586) for the precession of the equator (Eqs. 37) and the precession of the ecliptic (Eqs. 38); the same paper provides the polynomial developments for the P03 primary angles and a number of derived quantities for use in both the equinox based and *Celestial Intermediate Origin* based paradigms,
3. that the choice of precession parameters be left to the user, and
4. that the ecliptic pole should be explicitly defined by the mean orbital angular momentum vector of the Earth-Moon barycenter in an inertial reference frame, and this definition should be explicitly stated to avoid confusion with other, older definitions.